DSE Mathematics: Revision Guide

Paper 2: Multiple Choices

General Instructions

Section A: (30 questions)

• Section A (1): About 14 Algebra Questions, with following common topics

目標:一分鐘一題,超過兩分鐘都做唔到就放棄

Topics	Questions in each year (Question no.)								
	SP	PP	2012	2013	2014	2015	2016	2017	
Laws of indices	1	1	1	1	1	2	1		
Change of subjects	2	2		2			2		
Simultaneous Eq.			5		8	3	5, 13		
Identities	4	4	3	8	3	5			
Factorization	3	3	2	3	2	1	3		
Remainder/Factor thm	5	5	4	9			6		
Percentage (Simple)	10	10	8	10	9	9	10		
% change in area /vol	12	11			10				
Compound interest				11		10			
Quadratic equation : Δ or properties	7	6			4	<mark>7</mark>	8		
Quadratic equation : graphs	8	8	6	7	5	8	9		
Rate and ratio	13	12	9, 11	<mark>12</mark>	12	11	11		
Inequalities	9	9	7	5	7	6	7		
Variations	14	13	10	13	13	12	12		
Solving special eq.	6			6					
Sequences	11		12		14	13	14		
Estimation and errors		14	13, 14	4	11	4, 14	4		

Time used: Around 25 minutes

• Section A(2): Geometry and Coordinate Geometry (About 10 questions)

The following common topics / methods-to-use usually exists:

策略: 先做熟悉體型 (大概會有 5 題),分半鐘一題 然後嘗試做一題圓形,一題平面幾何題 (每題大概兩分鐘)

全部幾何題不要用超過 20 分鐘, 寧願犧牲時間做後面的 stat / probability

Topics	Questions in each year (Question no.)								
	SP	PP	2012	2013	2014	2015	2016	2017	
Easier Questions (較易開	澧型):								
Area and Volume	17	15,16	16	17		16	18, 19		
直角三角形:sin/cos/tan			18		18	18	21		
圓形:Angle in centre									
twice angle in	22	21							
circumference									
圓形:Angle in	21	20				20			
semicircle	21					20			
直角三角形/畢氏定理	20	18	15	22	15	15	16		
正多邊形的特性			22	21	22	22	24		
(interior / exterior ∠)			22	21	22	22	24		
Trigonometric identity	19	23	19	23	19	19			
Coordinates:			23		23	23			
Rectangular 📛 Polar			23		23	23			
Coordinates : Rotation /	26	25							
Translation	20								
Equation of straight line			25		25	25	25, 26		
平行四邊形/菱形/梯形	18	19, 22			16		17		
/三角形 : 搵角度	10	17, 22			10		1 /		
旋轉/軸對稱	25	24		15			23		
Harder Questions (較難	體型):								
判斷 Locus 的形狀		26	24	24	24	24			
2-D Trigonometry	16, 24		21	16					
圓形:Cyclic quad;									
Tangents									
其他圓形			20	19	20, 21	21	22		
按底和高的比例/ $\sim \Delta s$,	23	23 17	17	18	17	17	20		
求面積 / 面積之比									
Equation of circle		27	26	25	26	26	27		

• Section A (3): Data Handling (About 4 questions)

Topics	Questions in each year (Question no.)								
	SP	PP	2012	2013	2014	2015	2016	2017	
Simple Probability		28	27	26	27		28		
Expected Value						27	29		
Bar Chart			29			28			
Pie Chart				30	29				
Stem-and-leaf diagram	28		28		30				
Box-and-whisker	27	29		29		29			
Mean / Median / Mode	29	30	30	27	28	30	30		
Abuses of statistics	30			28					

策略:

- 執分位,務求「快而準」,大約一分鐘一題
- Mean / Median / Mode 的題目可能要多用時間思考
- 2017 極大可能會出 Box-and-whister / Stem-and-leaf diagram
- 這一部分不要用超過八分鐘(兩分鐘一題)。

Topics	Questions in each year (Question no.)								
	SP	PP	2012	2013	2014	2015	2016	2017	
Easier Questions (較易開	澧型):			•					
二進制 / 十六進制	33	32	33	33	34	33	33		
L.C.M. or H.C.F. of			31	31	31		31		
polynomials			31	31	31		31		
Rational functions 的	31					31			
加減乘除	31								
i	34	34	35	36	36	35	34		
Mode/Variance/sd/IQR 的轉變	45	44, 45	45	45	44, 45	45	44, 45		
Transformation of	37	31	34, 38		38				
graphs	37	31	J 1 , J0		36				
nPr / nCr	44	43	43	44	43	43	43		
Probability	43		44			44	42		
Linear Programming	35		36			36	35		
Trigo 圖	42	38	39	39		39	37		
簡單的 A.S. / G.S.	36	35	37	38	37	37	36		
簡單的 2-D Trigo	38				39	38	38		
Log transformation	32	36, 37	32	32	32, 33	32	32		
Harder Questions 較難 Intersection of Circles	題目:	(除非有大 41	(量時間, 42	否則不要係 42	故)	41	41		
and Lines		42		42		42			
三角形的四心	20	42		43		42			
A.S. / G.S. 應用題	39	22		24.25	2.5	2.4			
極繁複的 algebra 計算		33		34, 35	35	34			
沒有圖的 Linear				37					
Programming					4-				
3-D Trigonometry	40	39	40	40	40	40	39		
超難的圓形	41	40	41	41	41		40		

● 策略:

- 十五條內有大約十條均是常見體型,每條題目平均用兩分鐘完成,即不超過20分鐘。
- 餘下大約八分鐘,可先做 intersection of circles and lines; 三角形的四心 (如有);
- 撞一下 3-D 及圓形。